

same channel block(s) in accordance with the geographical channel block layout or with paragraph (b) of this section.

(b) Ground station locations may be more than 1.61 kilometers (one mile) from all of the locations listed in this section, provided that they are at least 885 kilometers (550 miles) from all antenna locations of ground stations using the same channel block(s) in accordance with the geographical channel block layout or with this paragraph.

§ 22.861 Emission limitations.

Any appropriate emission type may be used to provide air-ground radio-telephone service on the channels listed in § 22.857, provided that the emission limitations of this section are met.

(a) *Emission mask.* The emission mask described in this paragraph applies instead of those in § 22.359. The power of any emission in each of the adjacent channels must be at least 30 dB below the power of the total emission. The power of any emission in any of the channels other than the one being used and the adjacent channels must be at least 50 dB below the power of the total emission.

(b) *Airborne mobile transmitters.* The power of any emission in each of the adjacent channels must not exceed -130 dBm at any ground station receiver, assuming a 0 dBi receive antenna. The power of any emission in any of the channels other than the one being used and the adjacent channels must not exceed -148 dBm at any ground station receiver, assuming a 0 dBi receive antenna.

(c) *Ground station transmitters.* The effective radiated power (ERP) of any emission outside of the frequency ranges set forth in § 22.857 must not exceed -10 dBm. The ERP of any emission in each of the adjacent channels must not exceed +10 dBm. The ERP of any emission in any of the channels other than the one being used and the adjacent channels must not exceed -5 dBm.

(d) If an emission on any frequency outside of the authorized bandwidth causes harmful interference, the FCC may require greater attenuation of

that emission than required in paragraph (a) of this section.

§ 22.863 Transmitter frequency tolerance.

Ground station transmitter frequencies must be maintained within 0.1 parts per million (ppm) of the channel reference or center frequencies. Doppler shift correction must be used to ensure that the frequencies of the signals of airborne mobile stations received at ground stations remain within 0.2 ppm of the channel reference or center frequencies.

§ 22.865 Automatic channel selection procedures.

Operation of stations using the channels listed in § 22.857 must be in accordance with the procedures in this section.

(a) A communications channel is not available for use by a ground station if it is already in use by another ground station at the same location. Ground station equipment must automatically determine whether channels are in use by other ground stations at the same location, and may employ radio frequency signal monitoring to do so. For example, a communications channel may be determined to be in use if the received signal power on that channel at the ground station exceeds -115 dBm, which, assuming a 0 dB gain 895 MHz receive antenna, corresponds to a field strength of approximately 19 dBµV/m. Ground stations may employ an alternative method of determining whether a communications channel is in use provided that such procedure is at least as reliable as radio frequency signal monitoring.

(b) Data indicating which communications channels are available for use are transmitted by ground stations on the assigned control channels.

(c) A call is originated when an airborne mobile station selects a communications channel based on the received data from ground stations and other factors, and transmits an identification code (which identifies the specific ground station from which service is requested) on the selected communications channel. The ground station from which service has been requested may